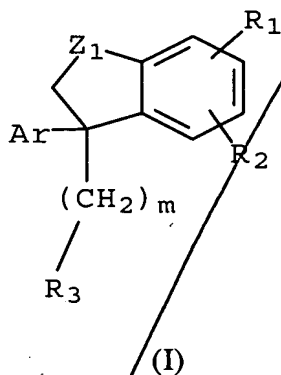


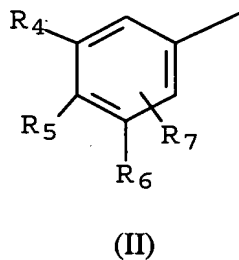
for a time and under conditions effective to exert an agonist or antagonist activity on the retinoic acid receptor, in an amount effective to treat said cancer, at least one compound having the formula (I) below:



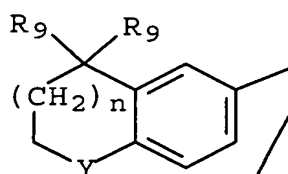
in which:

Ar represents

the radical of formula (II) below:

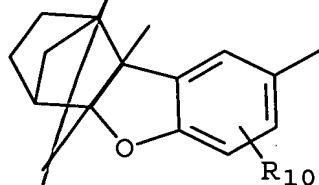


or the radical of formula (III) below:



(III)

or the radical of formula (IV) below:

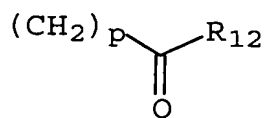


(IV)

R₁ represents an atom or a radical selected from the group consisting

of:

- (i) a -CH₃ radical,
- (ii) a radical -(CH₂)_p-O-R₁₁,
- (iii) a radical -OR₁₁,
- (iv) a radical



and

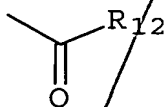
(v) a radical $-S(O)_t R_{13}$,

R_2 represents a hydrogen atom, a halogen atom, an alkyl radical or the radical $-OR_{11}$,

R_3 represents an atom or a radical selected from the group consisting of:

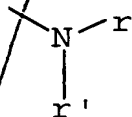
(i) an atom or a radical selected from the group consisting of a hydrogen atom, an alkyl radical, an alkenyl radical, an alkynyl radical, an aryl radical, a monohydroxyalkyl radical, a polyhydroxyalkyl radical, a polyether radical, a cyano radical and a radical $-O-R_{11}$,

(ii) a radical



and

(iii) a radical



Z_1 represents O, S or NR' ,

m is an integer between 0 and 10,

R_4 , R_5 , R_6 and R_7 are identical or different and are selected from the group consisting of:

(i) a hydrogen atom,

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(ii) an alkyl radical having at least 4 carbon atoms, wherein the carbon attached to the phenyl radical is substituted with at least two carbon atoms,

(iii) a cycloalkyl radical,

(iv) a radical $-(Z_2)_n-(CH_2)_q-CO-R_{12}$, and

(v) a radical $-Z_3-R_{11}$,

wherein at least one of the radicals R_4 , R_5 , R_6 and R_7 is an alkyl radical as defined in (ii) or a cycloalkyl radical (iii),

R_8 and R_9 represent lower alkyl radicals,

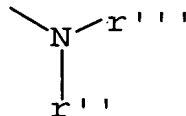
R_{10} represents a lower alkyl radical, a radical $-OR_{11}$ or a polyether radical,

R_{11} represents a hydrogen atom, a lower alkyl radical, an aryl radical, an aralkyl radical, a monohydroxyalkyl or polyhydroxyalkyl radical, a polyether radical or a lower acyl radical,

R_{12} represents:

(a) a hydrogen atom, an alkynyl radical, an alkenyl radical, an alkyl radical or a heterocycle,

(b) a radical



(c) a radical $-OR_{13}$,

R_{13} represents a hydrogen atom, an alkyl radical, a monohydroxyalkyl or polyhydroxyalkyl radical, an optionally substituted aryl or aralkyl radical or a sugar, amino acid or peptide residue,

R' represents a protecting group for an amine function, a hydrogen atom, a lower alkyl radical, a polyether radical, an optionally substituted aryl radical or an amino acid, peptide or sugar residue,

r and r' , which are identical or different, represent a protecting group for an amine function, a hydrogen atom, a lower alkyl radical, a polyether radical, an optionally substituted aryl radical or an amino acid, peptide or sugar residue, or alternatively, taken together, form a heterocycle,

r'' and r''' , which are identical or different, represent a hydrogen atom, a lower alkyl radical, a polyether radical, an optionally substituted aryl radical or an amino acid, peptide or sugar residue, or alternatively, taken together, form a heterocycle,

Y represents $C(R_9)_2$, O, S, Nr' , CHOH, CO, SO or SO_2 ,

Z_2 represents O, S or NR' ,

Z_3 represents O or S,

n is equal to 0 or 1;

p is equal to 0, 1, 2 or 3;

t is equal to 0, 1, 2 or 3; and

q is an integer between 0 and 10,

or a salt or isomer thereof.

61. (New) A method according to Claim 60, wherein said at least one compound having formula (I) has at least one characteristic selected from the group consisting of:

R_1 is a radical $-(CH_2)_p-CO-O-R_{13}$,

R_2 is hydrogen,

R_3 is hydrogen or an alkenyl radical,

R_5 or R_6 is a radical $-OR_{11}$,

R_7 is a cycloalkyl radical,

Z_1 is an oxygen atom,

Y is a radical $C(R_9)_2$, and

m is equal to 1.

62. (New) A method according to Claim 60, wherein said at least one compound having formula (I) has all of the following characteristics:

R_1 is a radical $-(CH_2)_p-CO-O-R_{13}$,

R_2 is hydrogen,

R_3 is hydrogen or an alkenyl radical,

R_5 or R_6 is a radical $-OR_{11}$,

R_7 is a cycloalkyl radical,

Z_1 is an oxygen atom,

Y is a radical $C(R_9)_2$, and

m is equal to 1.

63. (New) A method according to Claim 60, wherein said at least one compound having formula (I) is selected from the group consisting of:

3-[3-(1-adamantyl)-4-methoxyphenyl]-3-methyl-2*H*-1-benzofuran-6-carboxylic acid,

methyl 3-[3-(1-adamantyl)-4-methoxyphenyl]-3-methyl-2*H*-1-benzofuran-6-carboxylate,

3-[3-(1-adamantyl)-4-methoxyphenyl]-3-methyl-2*H*-1-benzofuran-5-carboxylic acid,

methyl 3-[3-(1-adamantyl)-4-methoxyphenyl]-3-methyl-2*H*-1-benzofuran-5-carboxylate,

3-methyl-3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-2*H*-1-benzofuran-6-carboxylic acid,

methyl 3-methyl-3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-2*H*-1-benzofuran-6-carboxylate,

3-(propen-2-yl)-3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-2*H*-1-benzofuran-6-carboxylic acid,

methyl 3-(propen-2-yl)-3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-2*H*-1-benzofuran-6-carboxylate,

3-(propen-2-yl)-3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-2*H*-1-benzofuran-5-carboxylic acid,

methyl 3-(propen-2-yl)-3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-2*H*-1-benzofuran-5-carboxylate,

3-methyl-3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-2H-1-benzofuran-5-carboxylic acid,

methyl 3-methyl-3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-2H-1-benzofuran-5-carboxylate,

3-methyl-3-(1,2,3,4-tetrahydro-1,4a,9b-trimethyl-1,4-methanodibenzofur-8-yl)-2H-1-benzofuran-6-carboxylic acid,

methyl 3-methyl-3-(1,2,3,4-tetrahydro-1,4a,9b-trimethyl-1,4-methanodibenzofur-8-yl)-2H-1-benzofuran-6-carboxylate,

3-methyl-3-(1,2,3,4-tetrahydro-1,4a,9b-trimethyl-1,4-methanodibenzofur-8-yl)-2H-1-benzofuran-5-carboxylic acid,

methyl 3-methyl-3-(1,2,3,4-tetrahydro-1,4a,9b-trimethyl-1,4-methanodibenzofur-8-yl)-2H-1-benzofuran-5-carboxylate,

3-allyl-3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-2H-1-benzofuran-6-carboxylic acid,

methyl 3-allyl-3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-2H-1-benzofuran-6-carboxylate.

[3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-3-methyl-2H-1-benzofur-5-oyl]morpholine,

N-4-hydroxyphenyl-3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-3-methyl-2H-1-benzofuran-5-carboxamide,

N-butyl-3-methyl-3-(5,5,8,8-tetramethyl-5,6,7,8-tetrahydro-2-naphthyl)-2H-1-benzofuran-5-carboxamide,

methyl 3-[4-(1-adamantyl)-3-methoxyphenyl-3-methyl-2*H*-1-benzofuran]-6-carboxylate,

3-[4-(1-adamantyl)-3-methoxyphenyl-3-methyl-2*H*-1-benzofuran]-6-carboxylic acid,

methyl 3-(3-methyl-5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-3-methyl-2*H*-1-benzofuran-6-carboxylate,

3-(3-methyl-5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-3-methyl-2*H*-1-benzofuran-6-carboxylic acid,

methyl 3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-3-(3,5-di-*tert*-butyl-4-hydroxybenzyl)-2*H*-1-benzofuran-6-carboxylate,

3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-3-(3,5-di-*tert*-butyl-4-hydroxybenzyl)-2*H*-1-benzofuran-6-carboxylic acid,

3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-3-methyl-2*H*-1-benzofuran-5-methanol,

3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-3-methyl-2*H*-1-benzofuran-5-carbaldehyde,

methyl (-)-3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-3-methyl-2*H*-1-benzofuran-5-carboxylate,

methyl (+)-3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-3-methyl-2*H*-1-benzofuran-5-carboxylate,

methyl (-)-3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-3-methyl-2*H*-1-benzofuran-6-carboxylate,

methyl (+)-3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-3-methyl-2H-1-benzofuran-6-carboxylate,

methyl 3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-3-(2-hexenyl)-2H-1-benzofuran-6-carboxylate,

3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-3-(2-hexenyl)-2H-1-benzofuran-6-carboxylic acid,

3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-3-hexyl-2H-1-benzofuran-6-carboxylic acid,

methyl 3-methoxycarbonylmethyl-3-(5,5,8,8-tetramethyl-5,6,7,8-tetrahydro-2-naphthyl)-2H-1-benzofuran-6-carboxylate, and

3-carboxymethyl-3-(5,5,8,8-tetramethyl-5,6,7,8-tetrahydro-2-naphthyl)-2H-1-benzofuran-6-carboxylic acid.

64. (New) A method according to Claim 63, wherein said at least one compound having formula (I) is selected from the group consisting of:

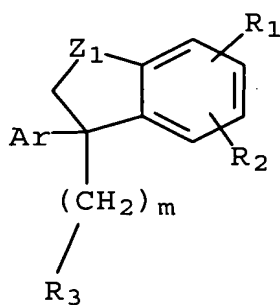
3-[3-(1-adamantyl)-4-methoxyphenyl]-3-methyl-2H-1-benzofuran-6-carboxylic acid,

3-methyl-3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-2H-1-benzofuran-6-carboxylic acid, and

3-methyl-3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-2H-1-benzofuran-5-carboxylic acid.

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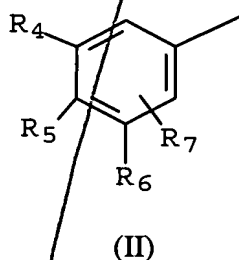
65. (New) A method for inhibiting the proliferation of dermal or epidermal cells in a subject inflicted with a disorder of proliferation of dermal or epidermal cells, said method comprising administering to said subject, for a time and under conditions effective to exert an agonist or antagonist activity on the retinoic acid receptor, in an amount effective to treat said disorder, at least one compound having the formula (I) below:



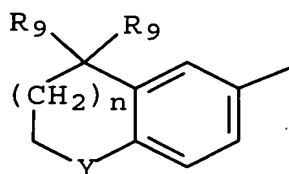
in which:

Ar represents

the radical of formula (II) below:

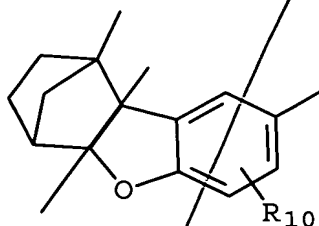


or the radical of formula (III) below:



(III)

or the radical of formula (IV) below:

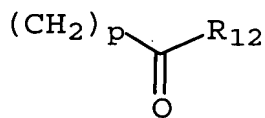


(IV)

R_1 represents an atom or a radical selected from the group consisting

of:

- (i) a $-\text{CH}_3$ radical,
- (ii) a radical $-(\text{CH}_2)_p-\text{O}-\text{R}_{11}$,
- (iii) a radical $-\text{OR}_{11}$,
- (iv) a radical



and

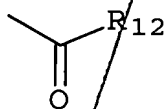
(v) a radical $-S(O)_tR_{13}$,

R_2 represents a hydrogen atom, a halogen atom, an alkyl radical or the radical $-OR_{11}$,

R_3 represents an atom or a radical selected from the group consisting of:

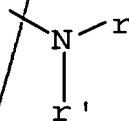
(i) an atom or a radical selected from the group consisting of a hydrogen atom, an alkyl radical, an alkenyl radical, an alkynyl radical, an aryl radical, a monohydroxyalkyl radical, a polyhydroxyalkyl radical, a polyether radical, a cyano radical and a radical $-O-R_{11}$,

(ii) a radical



and

(iii) a radical



Z_1 represents O, S or NR' ,

m is an integer between 0 and 10,

R_4 , R_5 , R_6 and R_7 are identical or different and are selected from the group consisting of:

(i) a hydrogen atom,

(ii) an alkyl radical having at least 4 carbon atoms, wherein the carbon attached to the phenyl radical is substituted with at least two carbon atoms,

(iii) a cycloalkyl radical,

(iv) a radical $-(Z_2)_n-(CH_2)_q-CO-R_{12}$, and

(v) a radical $-Z_3-R_{11}$,

wherein at least one of the radicals R_4 , R_5 , R_6 and R_7 is an alkyl radical as defined in (ii) or a cycloalkyl radical (iii),

R_8 and R_9 represent lower alkyl radicals,

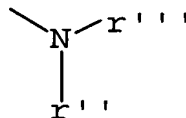
R_{10} represents a lower alkyl radical, a radical $-OR_{11}$ or a polyether radical,

R_{11} represents a hydrogen atom, a lower alkyl radical, an aryl radical, an aralkyl radical, a monohydroxyalkyl or polyhydroxyalkyl radical, a polyether radical or a lower acyl radical,

R_{12} represents:

(a) a hydrogen atom, an alkynyl radical, an alkenyl radical, an alkyl radical or a heterocycle,

(b) a radical



(c) a radical $-OR_{13}$,

R_{13} represents a hydrogen atom, an alkyl radical, a monohydroxyalkyl or polyhydroxyalkyl radical, an optionally substituted aryl or aralkyl radical or a sugar, amino acid or peptide residue,

R' represents a protecting group for an amine function, a hydrogen atom, a lower alkyl radical, a polyether radical, an optionally substituted aryl radical or an amino acid, peptide or sugar residue,

r and r' , which are identical or different, represent a protecting group for an amine function, a hydrogen atom, a lower alkyl radical, a polyether radical, an optionally substituted aryl radical or an amino acid, peptide or sugar residue, or alternatively, taken together, form a heterocycle,

r'' and r''' , which are identical or different, represent a hydrogen atom, a lower alkyl radical, a polyether radical, an optionally substituted aryl radical or an amino acid, peptide or sugar residue, or alternatively, taken together, form a heterocycle,

Y represents $C(R_9)_2$, O, S, Nr' , CHOH, CO, SO or SO_2 ,

Z_2 represents O, S or NR' ,

Z_3 represents O or S,

n is equal to 0 or 1;

p is equal to 0, 1, 2 or 3;

t is equal to 0, 1, 2 or 3; and

q is an integer between 0 and 10,

or a salt or isomer thereof.

Cont.

66. (New) A method according to Claim 65, wherein said at least one compound having formula (I) has at least one characteristic selected from the group consisting of:

R_1 is a radical $-(CH_2)_p-CO-O-R_{13}$,

R_2 is hydrogen,

R_3 is hydrogen or an alkenyl radical,

R_5 or R_6 is a radical $-OR_{11}$,

R_7 is a cycloalkyl radical,

Z_1 is an oxygen atom,

Y is a radical $C(R_9)_2$, and

m is equal to 1.

67. (New) A method according to Claim 65, wherein said at least one compound having formula (I) has all of the following characteristics:

R_1 is a radical $-(CH_2)_p-CO-O-R_{13}$,

R_2 is hydrogen,

R_3 is hydrogen or an alkenyl radical,

R_5 or R_6 is a radical $-OR_{11}$,

R_7 is a cycloalkyl radical,

Z_1 is an oxygen atom,

Y is a radical $C(R_9)_2$, and

m is equal to 1.

68. (New) A method according to Claim 65, wherein said at least one compound having formula (I) is selected from the group consisting of:

3-[3-(1-adamantyl)-4-methoxyphenyl]-3-methyl-2*H*-1-benzofuran-6-carboxylic acid,

methyl 3-[3-(1-adamantyl)-4-methoxyphenyl]-3-methyl-2*H*-1-benzofuran-6-carboxylate,

3-[3-(1-adamantyl)-4-methoxyphenyl]-3-methyl-2*H*-1-benzofuran-5-carboxylic acid,

methyl 3-[3-(1-adamantyl)-4-methoxyphenyl]-3-methyl-2*H*-1-benzofuran-5-carboxylate,

3-methyl-3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-2*H*-1-benzofuran-6-carboxylic acid,

methyl 3-methyl-3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-2*H*-1-benzofuran-6-carboxylate,

3-(propen-2-yl)-3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-2*H*-1-benzofuran-6-carboxylic acid,

methyl 3-(propen-2-yl)-3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-2*H*-1-benzofuran-6-carboxylate,

3-(propen-2-yl)-3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-2*H*-1-benzofuran-5-carboxylic acid,

methyl 3-(propen-2-yl)-3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-2*H*-1-benzofuran-5-carboxylate,

3-methyl-3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-2H-1-benzofuran-5-carboxylic acid,

methyl 3-methyl-3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-2H-1-benzofuran-5-carboxylate,

3-methyl-3-(1,2,3,4-tetrahydro-1,4a,9b-trimethyl-1,4-methanodibenzofur-8-yl)-2H-1-benzofuran-6-carboxylic acid,

methyl 3-methyl-3-(1,2,3,4-tetrahydro-1,4a,9b-trimethyl-1,4-methanodibenzofur-8-yl)-2H-1-benzofuran-6-carboxylate,

3-methyl-3-(1,2,3,4-tetrahydro-1,4a,9b-trimethyl-1,4-methanodibenzofur-8-yl)-2H-1-benzofuran-5-carboxylic acid,

methyl 3-methyl-3-(1,2,3,4-tetrahydro-1,4a,9b-trimethyl-1,4-methanodibenzofur-8-yl)-2H-1-benzofuran-5-carboxylate,

3-allyl-3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-2H-1-benzofuran-6-carboxylic acid,

methyl 3-allyl-3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-2H-1-benzofuran-6-carboxylate.

[3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-3-methyl-2H-1-benzofur-5-oyl]morpholine,

N-4-hydroxyphenyl-3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-3-methyl-2H-1-benzofuran-5-carboxamide,

N-butyl-3-methyl-3-(5,5,8,8-tetramethyl-5,6,7,8-tetrahydro-2-naphthyl)-2H-1-benzofuran-5-carboxamide,

methyl 3-[4-(1-adamantyl)-3-methoxyphenyl-3-methyl-2*H*-1-benzofuran]-6-carboxylate,

3-[4-(1-adamantyl)-3-methoxyphenyl-3-methyl-2*H*-1-benzofuran]-6-carboxylic acid,

methyl 3-(3-methyl-5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-3-methyl-2*H*-1-benzofuran-6-carboxylate,

3-(3-methyl-5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-3-methyl-2*H*-1-benzofuran-6-carboxylic acid,

methyl 3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-3-(3,5-di-*tert*-butyl-4-hydroxybenzyl)-2*H*-1-benzofuran-6-carboxylate,

3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-3-(3,5-di-*tert*-butyl-4-hydroxybenzyl)-2*H*-1-benzofuran-6-carboxylic acid,

3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-3-methyl-2*H*-1-benzofuran-5-methanol,

3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-3-methyl-2*H*-1-benzofuran-5-carbaldehyde,

methyl (-)-3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-3-methyl-2*H*-1-benzofuran-5-carboxylate,

methyl (+)-3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-3-methyl-2*H*-1-benzofuran-5-carboxylate,

methyl (-)-3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-3-methyl-2*H*-1-benzofuran-6-carboxylate,

methyl (+)-3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-3-methyl-2H-1-benzofuran-6-carboxylate,

methyl 3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-3-(2-hexenyl)-2H-1-benzofuran-6-carboxylate,

3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-3-(2-hexenyl)-2H-1-benzofuran-6-carboxylic acid,

3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-3-hexyl-2H-1-benzofuran-6-carboxylic acid,

methyl 3-methoxycarbonylmethyl-3-(5,5,8,8-tetramethyl-5,6,7,8-tetrahydro-2-naphthyl)-2H-1-benzofuran-6-carboxylate, and

3-carboxymethyl-3-(5,5,8,8-tetramethyl-5,6,7,8-tetrahydro-2-naphthyl)-2H-1-benzofuran-6-carboxylic acid.

69. (New) A method according to Claim 68, wherein said at least one compound having formula (I) is selected from the group consisting of:

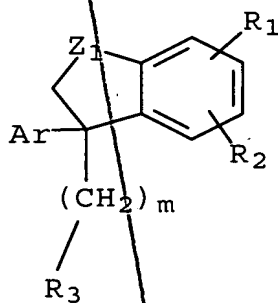
3-[3-(1-adamantyl)-4-methoxyphenyl]-3-methyl-2H-1-benzofuran-6-carboxylic acid,

3-methyl-3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-2H-1-benzofuran-6-carboxylic acid, and

3-methyl-3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-2H-1-benzofuran-5-carboxylic acid.

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70. (New) A method for inhibiting the proliferation of keratinocytes in a subject inflicted with a disorder of proliferation of keratinocytes, said method comprising administering to said subject, for a time and under conditions effective to exert an agonist or antagonist activity on the retinoic acid receptor, in an amount effective to treat said disorder, at least one compound having the formula (I) below:

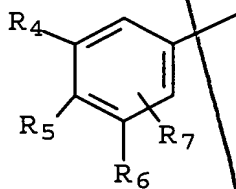


(I)

in which:

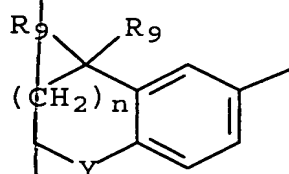
Ar represents

the radical of formula (II) below:



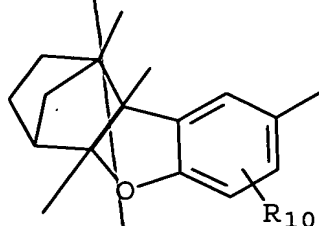
(II)

or the radical of formula (III) below:



(III)

or the radical of formula (IV) below:

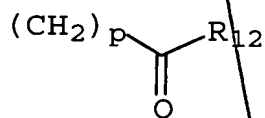


(IV)

R₁ represents an atom or a radical selected from the group consisting

of:

- (i) a -CH₃ radical,
- (ii) a radical -(CH₂)_p-O-R₁₁,
- (iii) a radical -OR₁₁,
- (iv) a radical



and

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Cont.

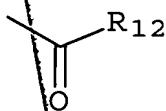
(v) a radical $-S(O)_tR_{13}$,

R_2 represents a hydrogen atom, a halogen atom, an alkyl radical or the radical $-OR_{11}$,

R_3 represents an atom or a radical selected from the group consisting of:

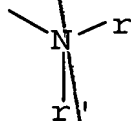
(i) an atom or a radical selected from the group consisting of a hydrogen atom, an alkyl radical, an alkenyl radical, an alkynyl radical, an aryl radical, a monohydroxyalkyl radical, a polyhydroxyalkyl radical, a polyether radical, a cyano radical and a radical $-O-R_{11}$,

(ii) a radical



and

(iii) a radical



Z_1 represents O, S or NR' ,

m is an integer between 0 and 10,

R_4 , R_5 , R_6 and R_7 are identical or different and are selected from the group consisting of:

(i) a hydrogen atom,

PA
Cont.

(ii) an alkyl radical having at least 4 carbon atoms, wherein the carbon attached to the phenyl radical is substituted with at least two carbon atoms,

(iii) a cycloalkyl radical,

(iv) a radical $-(Z_2)_n-(CH_2)_q-CO-R_{12}$, and

(v) a radical $-Z_3-R_{11}$,

wherein at least one of the radicals R_4 , R_5 , R_6 and R_7 is an alkyl radical as defined in (ii) or a cycloalkyl radical (iii),

R_8 and R_9 represent lower alkyl radicals,

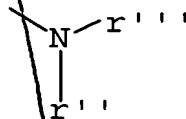
R_{10} represents a lower alkyl radical, a radical $-OR_{11}$ or a polyether radical,

R_{11} represents a hydrogen atom, a lower alkyl radical, an aryl radical, an aralkyl radical, a monohydroxyalkyl or polyhydroxyalkyl radical, a polyether radical or a lower acyl radical,

R_{12} represents:

(a) a hydrogen atom, an alkynyl radical, an alkenyl radical, an alkyl radical or a heterocycle,

(b) a radical



(c) a radical $-OR_{13}$,

R_{13} represents a hydrogen atom, an alkyl radical, a monohydroxyalkyl or polyhydroxyalkyl radical, an optionally substituted aryl or aralkyl radical or a sugar, amino acid or peptide residue,

R' represents a protecting group for an amine function, a hydrogen atom, a lower alkyl radical, a polyether radical, an optionally substituted aryl radical or an amino acid, peptide or sugar residue,

r and r' , which are identical or different, represent a protecting group for an amine function, a hydrogen atom, a lower alkyl radical, a polyether radical, an optionally substituted aryl radical or an amino acid, peptide or sugar residue, or alternatively, taken together, form a heterocycle,

r'' and r''' , which are identical or different, represent a hydrogen atom, a lower alkyl radical, a polyether radical, an optionally substituted aryl radical or an amino acid, peptide or sugar residue, or alternatively, taken together, form a heterocycle,

Y represents $C(R_9)_2$, O, S, Nr' , CHOH, CO, SO or SO_2 ,

Z_2 represents O, S or NR' ,

Z_3 represents O or S,

n is equal to 0 or 1;

p is equal to 0, 1, 2 or 3;

t is equal to 0, 1, 2 or 3; and

q is an integer between 0 and 10,

or a salt or isomer thereof.

71. (New) A method according to Claim 70, wherein said at least one compound having formula (I) has at least one characteristic selected from the group consisting of:

R_1 is a radical $-(CH_2)_p-CO-O-R_{13}$,

R_2 is hydrogen,

R_3 is hydrogen or an alkenyl radical,

R_5 or R_6 is a radical $-OR_{11}$,

R_7 is a cycloalkyl radical,

Z_1 is an oxygen atom,

Y is a radical $C(R_9)_2$, and

m is equal to 1.

72. (New) A method according to Claim 70, wherein said at least one compound having formula (I) has all of the following characteristics:

R_1 is a radical $-(CH_2)_p-CO-O-R_{13}$,

R_2 is hydrogen,

R_3 is hydrogen or an alkenyl radical,

R_5 or R_6 is a radical $-OR_{11}$,

R_7 is a cycloalkyl radical,

Z_1 is an oxygen atom, and

Y is a radical $C(R_9)_2$, and

m is equal to 1.

73. (New) A method according to Claim 70, wherein said at least one compound having formula (I) is selected from the group consisting of:

3-[3-(1-adamantyl)-4-methoxyphenyl]-3-methyl-2*H*-1-benzofuran-6-carboxylic acid,

methyl 3-[3-(1-adamantyl)-4-methoxyphenyl]-3-methyl-2*H*-1-benzofuran-6-carboxylate,

3-[3-(1-adamantyl)-4-methoxyphenyl]-3-methyl-2*H*-1-benzofuran-5-carboxylic acid,

methyl 3-[3-(1-adamantyl)-4-methoxyphenyl]-3-methyl-2*H*-1-benzofuran-5-carboxylate,

3-methyl-3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-2*H*-1-benzofuran-6-carboxylic acid,

methyl 3-methyl-3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-2*H*-1-benzofuran-6-carboxylate,

3-(propen-2-yl)-3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-2*H*-1-benzofuran-6-carboxylic acid,

methyl 3-(propen-2-yl)-3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-2*H*-1-benzofuran-6-carboxylate,

3-(propen-2-yl)-3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-2*H*-1-benzofuran-5-carboxylic acid,

methyl 3-(propen-2-yl)-3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-2*H*-1-benzofuran-5-carboxylate,

3-methyl-3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-2*H*-1-benzofuran-5-carboxylic acid,

methyl 3-methyl-3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-2*H*-1-benzofuran-5-carboxylate,

3-methyl-3-(1,2,3,4-tetrahydro-1,4a,9b-trimethyl-1,4-methanodibenzofur-8-yl)-2*H*-1-benzofuran-6-carboxylic acid,

methyl 3-methyl-3-(1,2,3,4-tetrahydro-1,4a,9b-trimethyl-1,4-methanodibenzofur-8-yl)-2*H*-1-benzofuran-6-carboxylate,

3-methyl-3-(1,2,3,4-tetrahydro-1,4a,9b-trimethyl-1,4-methanodibenzofur-8-yl)-2*H*-1-benzofuran-5-carboxylic acid,

methyl 3-methyl-3-(1,2,3,4-tetrahydro-1,4a,9b-trimethyl-1,4-methanodibenzofur-8-yl)-2*H*-1-benzofuran-5-carboxylate,

3-allyl-3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-2*H*-1-benzofuran-6-carboxylic acid,

methyl 3-allyl-3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-2*H*-1-benzofuran-6-carboxylate.

[3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-3-methyl-2*H*-1-benzofur-5-yl]morpholine,

N-4-hydroxyphenyl-3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-3-methyl-2*H*-1-benzofuran-5-carboxamide,

N-butyl-3-methyl-3-(5,5,8,8-tetramethyl-5,6,7,8-tetrahydro-2-naphthyl)-2*H*-1-benzofuran-5-carboxamide,

methyl 3-[4-(1-adamantyl)-3-methoxyphenyl-3-methyl-2*H*-1-benzofuran]-6-carboxylate,

3-[4-(1-adamantyl)-3-methoxyphenyl-3-methyl-2*H*-1-benzofuran]-6-carboxylic acid,

methyl 3-(3-methyl-5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-3-methyl-2*H*-1-benzofuran-6-carboxylate,

3-(3-methyl-5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-3-methyl-2*H*-1-benzofuran-6-carboxylic acid,

methyl 3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-3-(3,5-di-*tert*-butyl-4-hydroxybenzyl)-2*H*-1-benzofuran-6-carboxylate,

3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-3-(3,5-di-*tert*-butyl-4-hydroxybenzyl)-2*H*-1-benzofuran-6-carboxylic acid,

3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-3-methyl-2*H*-1-benzofuran-5-methanol,

3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-3-methyl-2*H*-1-benzofuran-5-carbaldehyde,

methyl (-)-3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-3-methyl-2*H*-1-benzofuran-5-carboxylate,

methyl (+)-3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-3-methyl-2*H*-1-benzofuran-5-carboxylate,

methyl (-)-3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-3-methyl-2*H*-1-benzofuran-6-carboxylate,

methyl (+)-3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-3-methyl-2H-1-benzofuran-6-carboxylate,


methyl 3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-3-(2-hexenyl)-2H-1-benzofuran-6-carboxylate,

3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-3-(2-hexenyl)-2H-1-benzofuran-6-carboxylic acid,

3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-3-hexyl-2H-1-benzofuran-6-carboxylic acid,

methyl 3-methoxycarbonylmethyl-3-(5,5,8,8-tetramethyl-5,6,7,8-tetrahydro-2-naphthyl)-2H-1-benzofuran-6-carboxylate, and

3-carboxymethyl-3-(5,5,8,8-tetramethyl-5,6,7,8-tetrahydro-2-naphthyl)-2H-1-benzofuran-6-carboxylic acid.



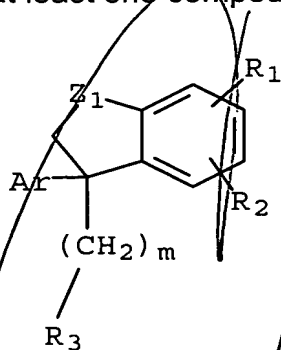
74. (New) A method according to Claim 73, wherein said at least one compound having formula (I) is selected from the group consisting of:

3-[3-(1-adamantyl)-4-methoxyphenyl]-3-methyl-2H-1-benzofuran-6-carboxylic acid,

3-methyl-3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-2H-1-benzofuran-6-carboxylic acid, and

3-methyl-3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-2H-1-benzofuran-5-carboxylic acid.

75. (New) A method for inhibiting the differentiation of keratinocytes in a subject inflicted with a disorder of differentiation of keratinocytes, said method comprising administering to said subject, for a time and under conditions effective to exert an agonist or antagonist activity on the retinoic acid receptor, in an amount effective to treat said disorder, at least one compound having the formula (I) below:

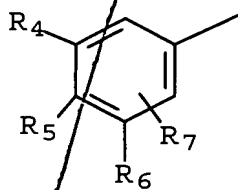


(I)

in which:

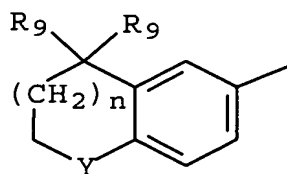
Ar represents

the radical of formula (II) below:



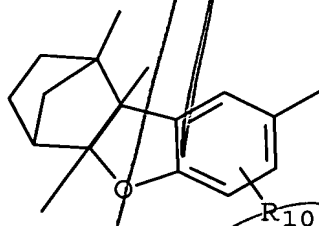
(II)

or the radical of formula (III) below:



(III)

or the radical of formula (IV) below:

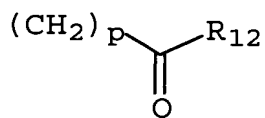


(IV)

R₁ represents an atom or a radical selected from the group consisting

of:

- (i) a -CH₃ radical,
- (ii) a radical -(CH₂)_p-O-R₁₁,
- (iii) a radical -OR₁₁,
- (iv) a radical



and

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(v) a radical $-S(O)_tR_{13}$,

R_2 represents a hydrogen atom, a halogen atom, an alkyl radical or the radical $-OR_{11}$,

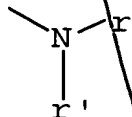
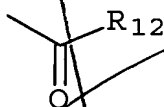
R_3 represents an atom or a radical selected from the group consisting of:

(i) an atom or a radical selected from the group consisting of a hydrogen atom, an alkyl radical, an alkenyl radical, an alkynyl radical, an aryl radical, a monohydroxyalkyl radical, a polyhydroxyalkyl radical, a polyether radical, a cyano radical and a radical $-O-R_{11}$,

(ii) a radical

and

(iii) a radical



Z_1 represents O, S or NR' ,

m is an integer between 0 and 10,

R_4 , R_5 , R_6 and R_7 are identical or different and are selected from the group consisting of:

(i) a hydrogen atom,

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(ii) an alkyl radical having at least 4 carbon atoms, wherein the carbon attached to the phenyl radical is substituted with at least two carbon atoms,

(iii) a cycloalkyl radical,

(iv) a radical $-(Z_2)_n-(CH_2)_6-CO-R_{12}$, and

(v) a radical $-Z_3-R_{11}$,

wherein at least one of the radicals R_4 , R_5 , R_6 and R_7 is an alkyl radical as defined in (ii) or a cycloalkyl radical (iii),

R_8 and R_9 represent lower alkyl radicals,

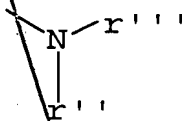
R_{10} represents a lower alkyl radical, a radical $-OR_{11}$ or a polyether radical,

R_{11} represents a hydrogen atom, a lower alkyl radical, an aryl radical, an aralkyl radical, a monohydroxyalkyl or polyhydroxyalkyl radical, a polyether radical or a lower acyl radical,

R_{12} represents:

(a) a hydrogen atom, an alkynyl radical, an alkenyl radical, an alkyl radical or a heterocycle,

(b) a radical



(c) a radical $-OR_{13}$,

R_{13} represents a hydrogen atom, an alkyl radical, a monohydroxyalkyl or polyhydroxyalkyl radical, an optionally substituted aryl or aralkyl radical or a sugar, amino acid or peptide residue,

R' represents a protecting group for an amine function, a hydrogen atom, a lower alkyl radical, a polyether radical, an optionally substituted aryl radical or an amino acid, peptide or sugar residue,

r and r' , which are identical or different, represent a protecting group for an amine function, a hydrogen atom, a lower alkyl radical, a polyether radical, an optionally substituted aryl radical or an amino acid, peptide or sugar residue, or alternatively, taken together, form a heterocycle,

r'' and r''' , which are identical or different, represent a hydrogen atom, a lower alkyl radical, a polyether radical, an optionally substituted aryl radical or an amino acid, peptide or sugar residue, or alternatively, taken together, form a heterocycle,

Y represents $C(R_9)_2$, O, S, NR' , $CHOH$, CO , SO or SO_2 ,

Z_2 represents O, S or NR' ,

Z_3 represents O or S,

n is equal to 0 or 1;

p is equal to 0, 1, 2 or 3;

t is equal to 0, 1, 2 or 3; and

q is an integer between 0 and 10,

or a salt or isomer thereof.

76. (New) A method according to Claim 75, wherein said at least one compound having formula (I) has at least one characteristic selected from the group consisting of:

R_1 is a radical $-(CH_2)_p-CO-O-R_{13}$,

R_2 is hydrogen,

R_3 is hydrogen or an alkenyl radical,

R_5 or R_6 is a radical $-OR_{11}$,

R_7 is a cycloalkyl radical,

Z_1 is an oxygen atom,

Y is a radical $C(R_9)_2$, and

m is equal to 1.

77. (New) A method according to Claim 75, wherein said at least one compound having formula (I) has all of the following characteristics:

R_1 is a radical $-(CH_2)_p-CO-O-R_{13}$,

R_2 is hydrogen,

R_3 is hydrogen or an alkenyl radical,

R_5 or R_6 is a radical $-OR_{11}$,

R_7 is a cycloalkyl radical,

Z_1 is an oxygen atom,

Y is a radical $C(R_9)_2$, and

m is equal to 1.

78. (New) A method according to Claim 75, wherein said at least one compound having formula (I) is selected from the group consisting of:

3-[3-(1-adamantyl)-4-methoxyphenyl]-3-methyl-2H-1-benzofuran-6-carboxylic acid,

methyl 3-[3-(1-adamantyl)-4-methoxyphenyl]-3-methyl-2H-1-benzofuran-6-carboxylate,

3-[3-(1-adamantyl)-4-methoxyphenyl]-3-methyl-2H-1-benzofuran-5-carboxylic acid,

methyl 3-[3-(1-adamantyl)-4-methoxyphenyl]-3-methyl-2H-1-benzofuran-5-carboxylate,

3-methyl-3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-2H-1-benzofuran-6-carboxylic acid,

methyl 3-methyl-3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-2H-1-benzofuran-6-carboxylate,

3-(propen-2-yl)-3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-2H-1-benzofuran-6-carboxylic acid,

methyl 3-(propen-2-yl)-3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-2H-1-benzofuran-6-carboxylate,

3-(propen-2-yl)-3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-2H-1-benzofuran-5-carboxylic acid,

methyl 3-(propen-2-yl)-3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-2H-1-benzofuran-5-carboxylate,

3-methyl-3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-2H-1-benzofuran-5-carboxylic acid,

methyl 3-methyl-3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-2H-1-benzofuran-5-carboxylate,

3-methyl-3-(1,2,3,4-tetrahydro-1,4a,9b-trimethyl-1,4-methanodibenzofur-8-yl)-2H-1-benzofuran-6-carboxylic acid,

methyl 3-methyl-3-(1,2,3,4-tetrahydro-1,4a,9b-trimethyl-1,4-methanodibenzofur-8-yl)-2H-1-benzofuran-6-carboxylate,

3-methyl-3-(1,2,3,4-tetrahydro-1,4a,9b-trimethyl-1,4-methanodibenzofur-8-yl)-2H-1-benzofuran-5-carboxylic acid,

methyl 3-methyl-3-(1,2,3,4-tetrahydro-1,4a,9b-trimethyl-1,4-methanodibenzofur-8-yl)-2H-1-benzofuran-5-carboxylate,

3-allyl-3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-2H-1-benzofuran-6-carboxylic acid,

methyl 3-allyl-3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-2H-1-benzofuran-6-carboxylate.

[3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-3-methyl-2H-1-benzofur-5-oyl]morpholine,

N-4-hydroxyphenyl-3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-3-methyl-2H-1-benzofuran-5-carboxamide,

N-butyl-3-methyl-3-(5,5,8,8-tetramethyl-5,6,7,8-tetrahydro-2-naphthyl)-2H-1-benzofuran-5-carboxamide,

methyl 3-[4-(1-adamantyl)-3-methoxyphenyl-3-methyl-2*H*-1-benzofuran]-6-carboxylate,

3-[4-(1-adamantyl)-3-methoxyphenyl-3-methyl-2*H*-1-benzofuran]-6-carboxylic acid,

methyl 3-(3-methyl-5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-3-methyl-2*H*-1-benzofuran-6-carboxylate,

3-(3-methyl-5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-3-methyl-2*H*-1-benzofuran-6-carboxylic acid,

methyl 3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-3-(3,5-di-*tert*-butyl-4-hydroxybenzyl)-2*H*-1-benzofuran-6-carboxylate,

3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-3-(3,5-di-*tert*-butyl-4-hydroxybenzyl)-2*H*-1-benzofuran-6-carboxylic acid,

3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-3-methyl-2*H*-1-benzofuran-5-methanol,

3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-3-methyl-2*H*-1-benzofuran-5-carbaldehyde,

methyl (-)-3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-3-methyl-2*H*-1-benzofuran-5-carboxylate,

methyl (+)-3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-3-methyl-2*H*-1-benzofuran-5-carboxylate,

methyl (-)-3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-3-methyl-2*H*-1-benzofuran-6-carboxylate,

methyl (+)-3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-3-methyl-2H-1-benzofuran-6-carboxylate,

methyl 3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-3-(2-hexenyl)-2H-1-benzofuran-6-carboxylate,

3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-3-(2-hexenyl)-2H-1-benzofuran-6-carboxylic acid,

3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-3-hexyl-2H-1-benzofuran-6-carboxylic acid,

methyl 3-methoxycarbonylmethyl-3-(5,5,8,8-tetramethyl-5,6,7,8-tetrahydro-2-naphthyl)-2H-1-benzofuran-6-carboxylate, and

3-carboxymethyl-3-(5,5,8,8-tetramethyl-5,6,7,8-tetrahydro-2-naphthyl)-2H-1-benzofuran-6-carboxylic acid.

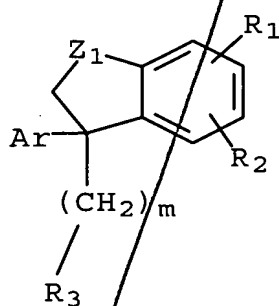
79. (New) A method according to Claim 78, wherein said at least one compound having formula (I) is selected from the group consisting of:

3-[3-(1-adamantyl)-4-methoxyphenyl]-3-methyl-2H-1-benzofuran-6-carboxylic acid,

3-methyl-3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-2H-1-benzofuran-6-carboxylic acid, and

3-methyl-3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-2H-1-benzofuran-5-carboxylic acid.

80. (New) A method for inhibiting inflammation in a subject inflicted with inflammation, said method comprising administering to said subject, for a time and under conditions effective to exert an agonist or antagonist activity on the retinoic acid receptor, in an amount effective to treat said inflammation, at least one compound having the formula (I) below:

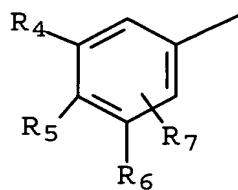


(I)

in which:

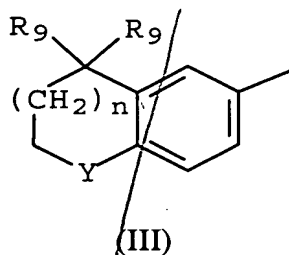
Ar represents

the radical of formula (II) below:

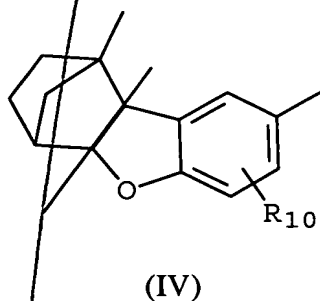


(II)

or the radical of formula (III) below:



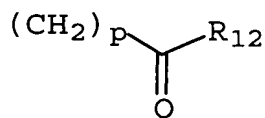
or the radical of formula (IV) below:



R₁ represents an atom or a radical selected from the group consisting

of:

- (i) a -CH₃ radical,
- (ii) a radical -(CH₂)_p-O-R₁₁,
- (iii) a radical -OR₁₁,
- (iv) a radical



and

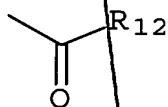
(v) a radical $-S(O)_tR_{13}$,

R_2 represents a hydrogen atom, a halogen atom, an alkyl radical or the radical $-OR_{11}$,

R_3 represents an atom or a radical selected from the group consisting of:

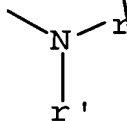
(i) an atom or a radical selected from the group consisting of a hydrogen atom, an alkyl radical, an alkenyl radical, an alkynyl radical, an aryl radical, a monohydroxyalkyl radical, a polyhydroxyalkyl radical, a polyether radical, a cyano radical and a radical $-O-R_{11}$,

(ii) a radical



and

(iii) a radical



Z_1 represents O, S or NR' ,

m is an integer between 0 and 10,

R_4 , R_5 , R_6 and R_7 are identical or different and are selected from the group consisting of:

(i) a hydrogen atom,

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cont

(ii) an alkyl radical having at least 4 carbon atoms, wherein the carbon attached to the phenyl radical is substituted with at least two carbon atoms,

(iii) a cycloalkyl radical,

(iv) a radical $-(Z_2)_n-(CH_2)_q-CO-R_{12}$, and

(v) a radical $-Z_3-R_{11}$,

wherein at least one of the radicals R_4 , R_5 , R_6 and R_7 is an alkyl radical as defined in (ii) or a cycloalkyl radical (iii),

R_8 and R_9 represent lower alkyl radicals,

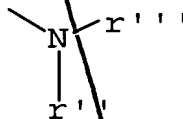
R_{10} represents a lower alkyl radical, a radical $-OR_{11}$ or a polyether radical,

R_{11} represents a hydrogen atom, a lower alkyl radical, an aryl radical, an aralkyl radical, a monohydroxyalkyl or polyhydroxyalkyl radical, a polyether radical or a lower acyl radical,

R_{12} represents:

(a) a hydrogen atom, an alkynyl radical, an alkenyl radical, an alkyl radical or a heterocycle,

(b) a radical



R_{13} represents a hydrogen atom, an alkyl radical, a monohydroxyalkyl or polyhydroxyalkyl radical, an optionally substituted aryl or aralkyl radical or a sugar, amino acid or peptide residue,

R' represents a protecting group for an amine function, a hydrogen atom, a lower alkyl radical, a polyether radical, an optionally substituted aryl radical or an amino acid, peptide or sugar residue,

r and r' , which are identical or different, represent a protecting group for an amine function, a hydrogen atom, a lower alkyl radical, a polyether radical, an optionally substituted aryl radical or an amino acid, peptide or sugar residue, or alternatively, taken together, form a heterocycle,

r'' and r''' , which are identical or different, represent a hydrogen atom, a lower alkyl radical, a polyether radical, an optionally substituted aryl radical or an amino acid, peptide or sugar residue, or alternatively, taken together, form a heterocycle,

Y represents $C(R_9)_2$, O, S, Nr' , CHOH, CO, SO or SO_2 ,

Z_2 represents O, S or NR' ,

Z_3 represents O or S,

n is equal to 0 or 1;

p is equal to 0, 1, 2 or 3;

t is equal to 0, 1, 2 or 3; and

q is an integer between 0 and 10,

or a salt or isomer thereof.

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Cont.

81. (New) A method according to Claim 80, wherein said at least one compound having formula (I) has at least one characteristic selected from the group consisting of:

R_1 is a radical $-(CH_2)_p-CO-O-R_{13}$,

R_2 is hydrogen,

R_3 is hydrogen or an alkenyl radical,

R_5 or R_6 is a radical $-OR_{11}$,

R_7 is a cycloalkyl radical,

Z_1 is an oxygen atom,

Y is a radical $C(R_9)_2$, and

m is equal to 1.

82. (New) A method according to Claim 80, wherein said at least one compound having formula (I) has all of the following characteristics:

R_1 is a radical $-(CH_2)_p-CO-O-R_{13}$,

R_2 is hydrogen,

R_3 is hydrogen or an alkenyl radical,

R_5 or R_6 is a radical $-OR_{11}$,

R_7 is a cycloalkyl radical,

Z_1 is an oxygen atom,

Y is a radical $C(R_9)_2$, and

m is equal to 1.

83. (New) A method according to Claim 80, wherein said at least one compound having formula (I) is selected from the group consisting of:

3-[3-(1-adamantyl)-4-methoxyphenyl]-3-methyl-2*H*-1-benzofuran-6-carboxylic acid,

methyl 3-[3-(1-adamantyl)-4-methoxyphenyl]-3-methyl-2*H*-1-benzofuran-6-carboxylate,

3-[3-(1-adamantyl)-4-methoxyphenyl]-3-methyl-2*H*-1-benzofuran-5-carboxylic acid,

methyl 3-[3-(1-adamantyl)-4-methoxyphenyl]-3-methyl-2*H*-1-benzofuran-5-carboxylate,

3-methyl-3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-2*H*-1-benzofuran-6-carboxylic acid,

methyl 3-methyl-3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-2*H*-1-benzofuran-6-carboxylate,

3-(propen-2-yl)-3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-2*H*-1-benzofuran-6-carboxylic acid,

methyl 3-(propen-2-yl)-3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-2*H*-1-benzofuran-6-carboxylate,

3-(propen-2-yl)-3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-2*H*-1-benzofuran-5-carboxylic acid,

methyl 3-(propen-2-yl)-3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-2*H*-1-benzofuran-5-carboxylate,

3-methyl-3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-2H-1-benzofuran-5-carboxylic acid,

methyl 3-methyl-3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-2H-1-benzofuran-5-carboxylate,

3-methyl-3-(1,2,3,4-tetrahydro-1,4a,9b-trimethyl-1,4-methanodibenzofur-8-yl)-2H-1-benzofuran-6-carboxylic acid,

methyl 3-methyl-3-(1,2,3,4-tetrahydro-1,4a,9b-trimethyl-1,4-methanodibenzofur-8-yl)-2H-1-benzofuran-6-carboxylate,

3-methyl-3-(1,2,3,4-tetrahydro-1,4a,9b-trimethyl-1,4-methanodibenzofur-8-yl)-2H-1-benzofuran-5-carboxylic acid,

methyl 3-methyl-3-(1,2,3,4-tetrahydro-1,4a,9b-trimethyl-1,4-methanodibenzofur-8-yl)-2H-1-benzofuran-5-carboxylate,

3-allyl-3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-2H-1-benzofuran-6-carboxylic acid,

methyl 3-allyl-3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-2H-1-benzofuran-6-carboxylate.

[3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-3-methyl-2H-1-benzofur-5-oyl]morpholine,

N-4-hydroxyphenyl-3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-3-methyl-2H-1-benzofuran-5-carboxamide,

N-butyl-3-methyl-3-(5,5,8,8-tetramethyl-5,6,7,8-tetrahydro-2-naphthyl)-2H-1-benzofuran-5-carboxamide,

methyl 3-[4-(1-adamantyl)-3-methoxyphenyl-3-methyl-2*H*-1-benzofuran]-6-carboxylate,

3-[4-(1-adamantyl)-3-methoxyphenyl-3-methyl-2*H*-1-benzofuran]-6-carboxylic acid,

methyl 3-(3-methyl-5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-3-methyl-2*H*-1-benzofuran-6-carboxylate,

3-(3-methyl-5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-3-methyl-2*H*-1-benzofuran-6-carboxylic acid,

methyl 3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-3-(3,5-di-*tert*-butyl-4-hydroxybenzyl)-2*H*-1-benzofuran-6-carboxylate,

3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-3-(3,5-di-*tert*-butyl-4-hydroxybenzyl)-2*H*-1-benzofuran-6-carboxylic acid,

3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-3-methyl-2*H*-1-benzofuran-5-methanol,

3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-3-methyl-2*H*-1-benzofuran-5-carbaldehyde,

methyl (-)-3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-3-methyl-2*H*-1-benzofuran-5-carboxylate,

methyl (+)-3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-3-methyl-2*H*-1-benzofuran-5-carboxylate,

methyl (-)-3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-3-methyl-2*H*-1-benzofuran-6-carboxylate,

methyl (+)-3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-3-methyl-2H-1-benzofuran-6-carboxylate,

methyl 3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-3-(2-hexenyl)-2H-1-benzofuran-6-carboxylate,

3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-3-(2-hexenyl)-2H-1-benzofuran-6-carboxylic acid,

3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-3-hexyl-2H-1-benzofuran-6-carboxylic acid,

methyl 3-methoxycarbonylmethyl-3-(5,5,8,8-tetramethyl-5,6,7,8-tetrahydro-2-naphthyl)-2H-1-benzofuran-6-carboxylate, and

3-carboxymethyl-3-(5,5,8,8-tetramethyl-5,6,7,8-tetrahydro-2-naphthyl)-2H-1-benzofuran-6-carboxylic acid.

84. (New) A method according to Claim 83, wherein said at least one compound having formula (I) is selected from the group consisting of:

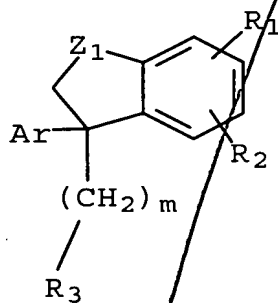
3-[3-(1-adamantyl)-4-methoxyphenyl]-3-methyl-2H-1-benzofuran-6-carboxylic acid,

3-methyl-3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-2H-1-benzofuran-6-carboxylic acid, and

3-methyl-3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-2H-1-benzofuran-5-carboxylic acid.

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85. (New) A method for inhibiting light-induced or chronological aging of the skin in a subject inflicted with light-induced or chronological aging of the skin, said method comprising administering to said subject, for a time and under conditions effective to exert an agonist or antagonist activity on the retinoic acid receptor, in an amount effective to treat said aging of the skin, at least one compound having the formula (I) below:

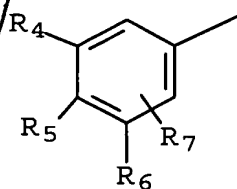


(I)

in which:

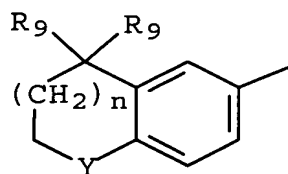
Ar represents

the radical of formula (II) below:



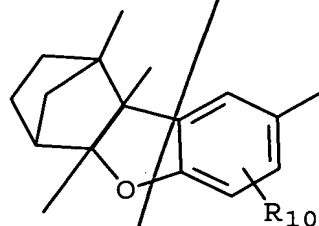
(II)

or the radical of formula (III) below:



(III)

or the radical of formula (IV) below:

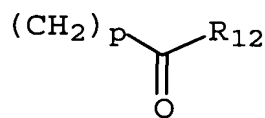


(IV)

R_1 represents an atom or a radical selected from the group consisting

of:

- (i) a $-CH_3$ radical,
- (ii) a radical $-(CH_2)_p-O-R_{11}$,
- (iii) a radical $-OR_{11}$,
- (iv) a radical



and

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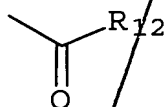
(v) a radical $-S(O)_i R_{13}$,

R_2 represents a hydrogen atom, a halogen atom, an alkyl radical or the radical $-OR_{11}$,

R_3 represents an atom or a radical selected from the group consisting of:

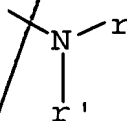
(i) an atom or a radical selected from the group consisting of a hydrogen atom, an alkyl radical, an alkenyl radical, an alkynyl radical, an aryl radical, a monohydroxyalkyl radical, a polyhydroxyalkyl radical, a polyether radical, a cyano radical and a radical $-O-R_{11}$,

(ii) a radical



and

(iii) a radical



Z_1 represents O, S or NR' ,

m is an integer between 0 and 10,

R_4 , R_5 , R_6 and R_7 are identical or different and are selected from the group consisting of:

(i) a hydrogen atom,

(ii) an alkyl radical having at least 4 carbon atoms, wherein the carbon attached to the phenyl radical is substituted with at least two carbon atoms,

(iii) a cycloalkyl radical,

(iv) a radical $-(Z_2)_n-(CH_2)_q-CO-R_{12}$, and

(v) a radical $-Z_3-R_{11}$,

wherein at least one of the radicals R_4 , R_5 , R_6 and R_7 is an alkyl radical as defined in (ii) or a cycloalkyl radical (iii),

R_8 and R_9 represent lower alkyl radicals,

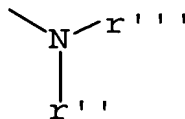
R_{10} represents a lower alkyl radical, a radical $-OR_{11}$ or a polyether radical,

R_{11} represents a hydrogen atom, a lower alkyl radical, an aryl radical, an aralkyl radical, a monohydroxyalkyl or polyhydroxyalkyl radical, a polyether radical or a lower acyl radical,

R_{12} represents:

(a) a hydrogen atom, an alkynyl radical, an alkenyl radical, an alkyl radical or a heterocycle,

(b) a radical



(c) a radical $-OR_{13}$,

R_{13} represents a hydrogen atom, an alkyl radical, a monohydroxyalkyl or polyhydroxyalkyl radical, an optionally substituted aryl or aralkyl radical or a sugar, amino acid or peptide residue,

R' represents a protecting group for an amine function, a hydrogen atom, a lower alkyl radical, a polyether radical, an optionally substituted aryl radical or an amino acid, peptide or sugar residue,

r and r' , which are identical or different, represent a protecting group for an amine function, a hydrogen atom, a lower alkyl radical, a polyether radical, an optionally substituted aryl radical or an amino acid, peptide or sugar residue, or alternatively, taken together, form a heterocycle,

r'' and r''' , which are identical or different, represent a hydrogen atom, a lower alkyl radical, a polyether radical, an optionally substituted aryl radical or an amino acid, peptide or sugar residue, or alternatively, taken together, form a heterocycle,

Y represents $C(R_9)_2$, O, S, NR' , CHOH, CO, SO or SO_2 ,

Z_2 represents O, S or NR' ,

Z_3 represents O or S,

n is equal to 0 or 1;

p is equal to 0, 1, 2 or 3;

t is equal to 0, 1, 2 or 3; and

q is an integer between 0 and 10,

or a salt or isomer thereof.

86. (New) A method according to Claim 85, wherein said at least one compound having formula (I) has at least one characteristic selected from the group consisting of:

R_1 is a radical $-(CH_2)_p-CO-O-R_{13}$,

R_2 is hydrogen,

R_3 is hydrogen or an alkenyl radical,

R_5 or R_6 is a radical $-OR_{11}$,

R_7 is a cycloalkyl radical,

Z_1 is an oxygen atom,

Y is a radical $C(R_9)_2$, and

m is equal to 1.

87. (New) A method according to Claim 85, wherein said at least one compound having formula (I) has all of the following characteristics:

R_1 is a radical $-(CH_2)_p-CO-O-R_{13}$,

R_2 is hydrogen,

R_3 is hydrogen or an alkenyl radical,

R_5 or R_6 is a radical $-OR_{11}$,

R_7 is a cycloalkyl radical,

Z_1 is an oxygen atom,

Y is a radical $C(R_9)_2$, and

m is equal to 1.

88. (New) A method according to Claim 85, wherein said at least one compound having formula (I) is selected from the group consisting of:

3-[3-(1-adamantyl)-4-methoxyphenyl]-3-methyl-2*H*-1-benzofuran-6-carboxylic acid,

methyl 3-[3-(1-adamantyl)-4-methoxyphenyl]-3-methyl-2*H*-1-benzofuran-6-carboxylate,

3-[3-(1-adamantyl)-4-methoxyphenyl]-3-methyl-2*H*-1-benzofuran-5-carboxylic acid,

methyl 3-[3-(1-adamantyl)-4-methoxyphenyl]-3-methyl-2*H*-1-benzofuran-5-carboxylate,

3-methyl-3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-2*H*-1-benzofuran-6-carboxylic acid,

methyl 3-methyl-3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-2*H*-1-benzofuran-6-carboxylate,

3-(propen-2-yl)-3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-2*H*-1-benzofuran-6-carboxylic acid,

methyl 3-(propen-2-yl)-3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-2*H*-1-benzofuran-6-carboxylate,

3-(propen-2-yl)-3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-2*H*-1-benzofuran-5-carboxylic acid,

methyl 3-(propen-2-yl)-3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-2*H*-1-benzofuran-5-carboxylate,

3-methyl-3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-2H-1-benzofuran-5-carboxylic acid,

methyl 3-methyl-3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-2H-1-benzofuran-5-carboxylate,

3-methyl-3-(1,2,3,4-tetrahydro-1,4a,9b-trimethyl-1,4-methanodibenzofur-8-yl)-2H-1-benzofuran-6-carboxylic acid,

methyl 3-methyl-3-(1,2,3,4-tetrahydro-1,4a,9b-trimethyl-1,4-methanodibenzofur-8-yl)-2H-1-benzofuran-6-carboxylate,

3-methyl-3-(1,2,3,4-tetrahydro-1,4a,9b-trimethyl-1,4-methanodibenzofur-8-yl)-2H-1-benzofuran-5-carboxylic acid,

methyl 3-methyl-3-(1,2,3,4-tetrahydro-1,4a,9b-trimethyl-1,4-methanodibenzofur-8-yl)-2H-1-benzofuran-5-carboxylate,

3-allyl-3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-2H-1-benzofuran-6-carboxylic acid,

methyl 3-allyl-3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-2H-1-benzofuran-6-carboxylate.

[3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-3-methyl-2H-1-benzofur-5-oyl]morpholine,

N-4-hydroxyphenyl-3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-3-methyl-2H-1-benzofuran-5-carboxamide,

N-butyl-3-methyl-3-(5,5,8,8-tetramethyl-5,6,7,8-tetrahydro-2-naphthyl)-2H-1-benzofuran-5-carboxamide,

methyl 3-[4-(1-adamantyl)-3-methoxyphenyl-3-methyl-2*H*-1-benzofuran]-6-carboxylate,

3-[4-(1-adamantyl)-3-methoxyphenyl-3-methyl-2*H*-1-benzofuran]-6-carboxylic acid,

methyl 3-(3-methyl-5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-3-methyl-2*H*-1-benzofuran-6-carboxylate,

3-(3-methyl-5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-3-methyl-2*H*-1-benzofuran-6-carboxylic acid,

methyl 3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-3-(3,5-di-*tert*-butyl-4-hydroxybenzyl)-2*H*-1-benzofuran-6-carboxylate,

3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-3-(3,5-di-*tert*-butyl-4-hydroxybenzyl)-2*H*-1-benzofuran-6-carboxylic acid,

3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-3-methyl-2*H*-1-benzofuran-5-methanol,

3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-3-methyl-2*H*-1-benzofuran-5-carbaldehyde,

methyl (-)-3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-3-methyl-2*H*-1-benzofuran-5-carboxylate,

methyl (+)-3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-3-methyl-2*H*-1-benzofuran-5-carboxylate,

methyl (-)-3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-3-methyl-2*H*-1-benzofuran-6-carboxylate,

methyl (+)-3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-3-methyl-2H-1-benzofuran-6-carboxylate,

methyl 3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-3-(2-hexenyl)-2H-1-benzofuran-6-carboxylate,

3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-3-(2-hexenyl)-2H-1-benzofuran-6-carboxylic acid,

3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-3-hexyl-2H-1-benzofuran-6-carboxylic acid,

methyl 3-methoxycarbonylmethyl-3-(5,5,8,8-tetramethyl-5,6,7,8-tetrahydro-2-naphthyl)-2H-1-benzofuran-6-carboxylate, and

3-carboxymethyl-3-(5,5,8,8-tetramethyl-5,6,7,8-tetrahydro-2-naphthyl)-2H-1-benzofuran-6-carboxylic acid.

89. (New) A method according to Claim 88, wherein said at least one compound having formula (I) is selected from the group consisting of:

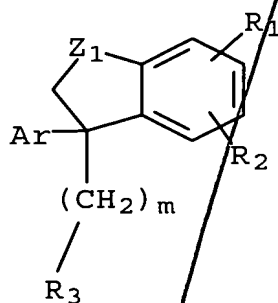
3-[3-(1-adamantyl)-4-methoxyphenyl]-3-methyl-2H-1-benzofuran-6-carboxylic acid,

3-methyl-3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-2H-1-benzofuran-6-carboxylic acid, and

3-methyl-3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-2H-1-benzofuran-5-carboxylic acid.

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cont.

90. (New) A method for inhibiting dermal atrophy induced by local or systemic corticosteroids in a subject inflicted with dermal atrophy induced by local or systemic corticosteroids, said method comprising administering to said subject, for a time and under conditions effective to exert an agonist or antagonist activity on the retinoic acid receptor, in an amount effective to treat said dermal atrophy, at least one compound having the formula (I) below:

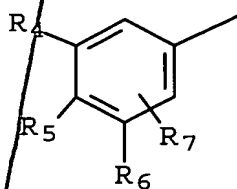


(I)

in which:

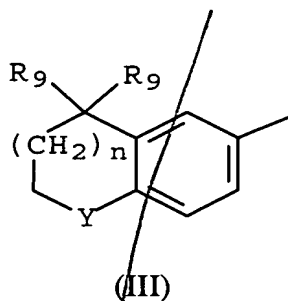
Ar represents

the radical of formula (II) below:

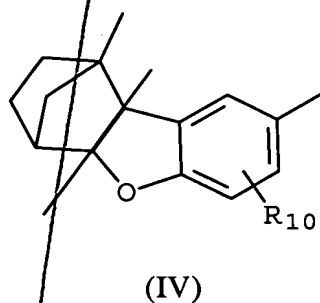


(II)

or the radical of formula (III) below:



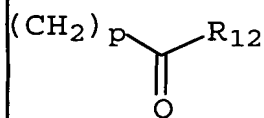
or the radical of formula (IV) below:



R₁ represents an atom or a radical selected from the group consisting

of:

- (i) a -CH₃ radical,
- (ii) a radical -(CH₂)_p-O-R₁₁,
- (iii) a radical -OR₁₁,
- (iv) a radical



and

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Cont.

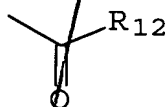
(v) a radical $-S(O)_tR_{13}$,

R_2 represents a hydrogen atom, a halogen atom, an alkyl radical or the radical $-OR_{11}$,

R_3 represents an atom or a radical selected from the group consisting of:

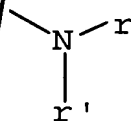
(i) an atom or a radical selected from the group consisting of a hydrogen atom, an alkyl radical, an alkenyl radical, an alkynyl radical, an aryl radical, a monohydroxyalkyl radical, a polyhydroxyalkyl radical, a polyether radical, a cyano radical and a radical $-O-R_{11}$,

(ii) a radical



and

(iii) a radical



Z_1 represents O, S or NR' ,

m is an integer between 0 and 10,

R_4 , R_5 , R_6 and R_7 are identical or different and are selected from the group consisting of:

(i) a hydrogen atom,

(ii) an alkyl radical having at least 4 carbon atoms, wherein the carbon attached to the phenyl radical is substituted with at least two carbon atoms,

(iii) a cycloalkyl radical,

(iv) a radical $-(Z_2)_n-(CH_2)_q-CO-R_{12}$, and

(v) a radical $-Z_3-R_{11}$,

wherein at least one of the radicals R_4 , R_5 , R_6 and R_7 is an alkyl radical as defined in (ii) or a cycloalkyl radical (iii),

R_8 and R_9 represent lower alkyl radicals,

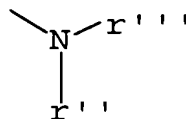
R_{10} represents a lower alkyl radical, a radical $-OR_{11}$ or a polyether radical,

R_{11} represents a hydrogen atom, a lower alkyl radical, an aryl radical, an aralkyl radical, a monohydroxyalkyl or polyhydroxyalkyl radical, a polyether radical or a lower acyl radical,

R_{12} represents:

(a) a hydrogen atom, an alkynyl radical, an alkenyl radical, an alkyl radical or a heterocycle,

(b) a radical



(c) a radical $-OR_{13}$,

R_{13} represents a hydrogen atom, an alkyl radical, a monohydroxyalkyl or polyhydroxyalkyl radical, an optionally substituted aryl or aralkyl radical or a sugar, amino acid or peptide residue,

R' represents a protecting group for an amine function, a hydrogen atom, a lower alkyl radical, a polyether radical, an optionally substituted aryl radical or an amino acid, peptide or sugar residue,

r and r' , which are identical or different, represent a protecting group for an amine function, a hydrogen atom, a lower alkyl radical, a polyether radical, an optionally substituted aryl radical or an amino acid, peptide or sugar residue, or alternatively, taken together, form a heterocycle,

r'' and r''' , which are identical or different, represent a hydrogen atom, a lower alkyl radical, a polyether radical, an optionally substituted aryl radical or an amino acid, peptide or sugar residue, or alternatively, taken together, form a heterocycle,

Y represents $C(R_9)_2$, O, S, Nr' , CHOH, CO, SO or SO_2 ,

Z_2 represents O, S or NR' ,

Z_3 represents O or S,

n is equal to 0 or 1;

p is equal to 0, 1, 2 or 3;

t is equal to 0, 1, 2 or 3; and

q is an integer between 0 and 10,

or a salt or isomer thereof.

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Cont

91. (New) A method according to Claim 90, wherein said at least one compound having formula (I) has at least one characteristic selected from the group consisting of:

R_1 is a radical $-(CH_2)_p-CO-O-R_{13}$,

R_2 is hydrogen,

R_3 is hydrogen or an alkenyl radical,

R_5 or R_6 is a radical $-OR_{11}$,

R_7 is a cycloalkyl radical,

Z_1 is an oxygen atom,

Y is a radical $C(R_9)_2$, and

m is equal to 1.

92. (New) A method according to Claim 90, wherein said at least one compound having formula (I) has all of the following characteristics:

R_1 is a radical $-(CH_2)_p-CO-O-R_{13}$,

R_2 is hydrogen,

R_3 is hydrogen or an alkenyl radical,

R_5 or R_6 is a radical $-OR_{11}$,

R_7 is a cycloalkyl radical,

Z_1 is an oxygen atom,

Y is a radical $C(R_9)_2$, and

m is equal to 1.

93. (New) A method according to Claim 90, wherein said at least one compound having formula (I) is selected from the group consisting of:

3-[3-(1-adamantyl)-4-methoxyphenyl]-3-methyl-2*H*-1-benzofuran-6-carboxylic acid,

methyl 3-[3-(1-adamantyl)-4-methoxyphenyl]-3-methyl-2*H*-1-benzofuran-6-carboxylate,

3-[3-(1-adamantyl)-4-methoxyphenyl]-3-methyl-2*H*-1-benzofuran-5-carboxylic acid,

methyl 3-[3-(1-adamantyl)-4-methoxyphenyl]-3-methyl-2*H*-1-benzofuran-5-carboxylate,

3-methyl-3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-2*H*-1-benzofuran-6-carboxylic acid,

methyl 3-methyl-3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-2*H*-1-benzofuran-6-carboxylate,

3-(propen-2-yl)-3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-2*H*-1-benzofuran-6-carboxylic acid,

methyl 3-(propen-2-yl)-3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-2*H*-1-benzofuran-6-carboxylate,

3-(propen-2-yl)-3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-2*H*-1-benzofuran-5-carboxylic acid,

methyl 3-(propen-2-yl)-3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-2*H*-1-benzofuran-5-carboxylate,

3-methyl-3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-2H-1-benzofuran-5-carboxylic acid,

methyl 3-methyl-3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-2H-1-benzofuran-5-carboxylate,

3-methyl-3-(1,2,3,4-tetrahydro-1,4a,9b-trimethyl-1,4-methanodibenzofur-8-yl)-2H-1-benzofuran-6-carboxylic acid,

methyl 3-methyl-3-(1,2,3,4-tetrahydro-1,4a,9b-trimethyl-1,4-methanodibenzofur-8-yl)-2H-1-benzofuran-6-carboxylate,

3-methyl-3-(1,2,3,4-tetrahydro-1,4a,9b-trimethyl-1,4-methanodibenzofur-8-yl)-2H-1-benzofuran-5-carboxylic acid,

methyl 3-methyl-3-(1,2,3,4-tetrahydro-1,4a,9b-trimethyl-1,4-methanodibenzofur-8-yl)-2H-1-benzofuran-5-carboxylate,

3-allyl-3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-2H-1-benzofuran-6-carboxylic acid,

methyl 3-allyl-3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-2H-1-benzofuran-6-carboxylate.

[3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-3-methyl-2H-1-benzofur-5-oyl]morpholine,

N-4-hydroxyphenyl-3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-3-methyl-2H-1-benzofuran-5-carboxamide,

N-butyl-3-methyl-3-(5,5,8,8-tetramethyl-5,6,7,8-tetrahydro-2-naphthyl)-2H-1-benzofuran-5-carboxamide,

methyl 3-[4-(1-adamantyl)-3-methoxyphenyl-3-methyl-2*H*-1-benzofuran]-6-carboxylate,

3-[4-(1-adamantyl)-3-methoxyphenyl-3-methyl-2*H*-1-benzofuran]-6-carboxylic acid,

methyl 3-(3-methyl-5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-3-methyl-2*H*-1-benzofuran-6-carboxylate,

3-(3-methyl-5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-3-methyl-2*H*-1-benzofuran-6-carboxylic acid,

methyl 3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-3-(3,5-di-*tert*-butyl-4-hydroxybenzyl)-2*H*-1-benzofuran-6-carboxylate,

3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-3-(3,5-di-*tert*-butyl-4-hydroxybenzyl)-2*H*-1-benzofuran-6-carboxylic acid,

3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-3-methyl-2*H*-1-benzofuran-5-methanol,

3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-3-methyl-2*H*-1-benzofuran-5-carbaldehyde,

methyl (-)-3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-3-methyl-2*H*-1-benzofuran-5-carboxylate,

methyl (+)-3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-3-methyl-2*H*-1-benzofuran-5-carboxylate,

methyl (-)-3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-3-methyl-2*H*-1-benzofuran-6-carboxylate,

methyl (+)-3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-3-methyl-2H-1-benzofuran-6-carboxylate,

methyl 3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-3-(2-hexenyl)-2H-1-benzofuran-6-carboxylate,

3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-3-(2-hexenyl)-2H-1-benzofuran-6-carboxylic acid,

3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-3-hexyl-2H-1-benzofuran-6-carboxylic acid,

methyl 3-methoxycarbonylmethyl-3-(5,5,8,8-tetramethyl-5,6,7,8-tetrahydro-2-naphthyl)-2H-1-benzofuran-6-carboxylate, and

3-carboxymethyl-3-(5,5,8,8-tetramethyl-5,6,7,8-tetrahydro-2-naphthyl)-2H-1-benzofuran-6-carboxylic acid.

94. (New) A method according to Claim 93, wherein said at least one compound having formula (I) is selected from the group consisting of:

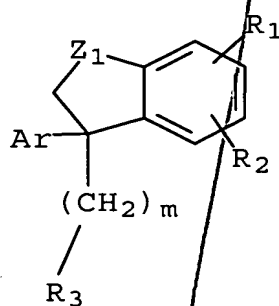
3-[3-(1-adamantyl)-4-methoxyphenyl]-3-methyl-2H-1-benzofuran-6-carboxylic acid,

3-methyl-3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-2H-1-benzofuran-6-carboxylic acid, and

3-methyl-3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-2H-1-benzofuran-5-carboxylic acid.

Sub 571

95. (New) A method for inhibiting a cicatrization disorder in a subject inflicted with a cicatrization disorder, said method comprising administering to said subject, for a time and under conditions effective to exert an agonist or antagonist activity on the retinoic acid receptor, in an amount effective to treat said disorder, at least one compound having the formula (I) below:

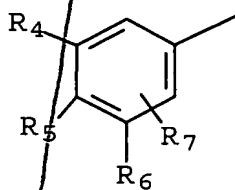


(I)

in which:

Ar represents

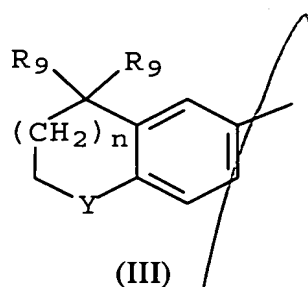
the radical of formula (II) below:



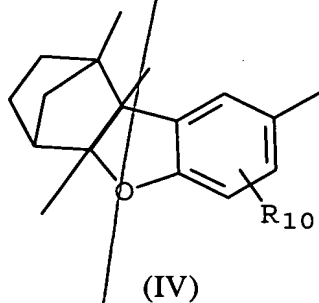
(II)

or the radical of formula (III) below:

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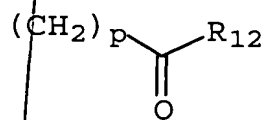
or the radical of formula (IV) below:



R₁ represents an atom or a radical selected from the group consisting

of:

- (i) a -CH₃ radical,
- (ii) a radical -(CH₂)_p-O-R₁₁,
- (iii) a radical -OR₁₁,
- (iv) a radical



and

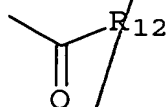
(v) a radical $-S(O)_i R_{13}$,

R_2 represents a hydrogen atom, a halogen atom, an alkyl radical or the radical $-OR_{11}$,

R_3 represents an atom or a radical selected from the group consisting of:

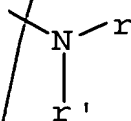
(i) an atom or a radical selected from the group consisting of a hydrogen atom, an alkyl radical, an alkenyl radical, an alkynyl radical, an aryl radical, a monohydroxyalkyl radical, a polyhydroxyalkyl radical, a polyether radical, a cyano radical and a radical $-O-R_{11}$,

(ii) a radical



and

(iii) a radical



Z_1 represents O, S or NR' ,

m is an integer between 0 and 10,

R_4 , R_5 , R_6 and R_7 are identical or different and are selected from the group consisting of:

(i) a hydrogen atom,

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Cont.

(ii) an alkyl radical having at least 4 carbon atoms, wherein the carbon attached to the phenyl radical is substituted with at least two carbon atoms,

(iii) a cycloalkyl radical,

(iv) a radical $-(Z_2)_n-(CH_2)_q-CO-R_{12}$, and

(v) a radical $-Z_3-R_{11}$,

wherein at least one of the radicals R_4 , R_5 , R_6 and R_7 is an alkyl radical as defined in (ii) or a cycloalkyl radical (iii),

R_8 and R_9 represent lower alkyl radicals,

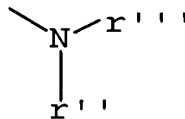
R_{10} represents a lower alkyl radical, a radical $-OR_{11}$ or a polyether radical,

R_{11} represents a hydrogen atom, a lower alkyl radical, an aryl radical, an aralkyl radical, a monohydroxyalkyl or polyhydroxyalkyl radical, a polyether radical or a lower acyl radical,

R_{12} represents:

(a) a hydrogen atom, an alkynyl radical, an alkenyl radical, an alkyl radical or a heterocycle,

(b) a radical



(c) a radical $-OR_{13}$,

FI
Cont.

R_{13} represents a hydrogen atom, an alkyl radical, a monohydroxyalkyl or polyhydroxyalkyl radical, an optionally substituted aryl or aralkyl radical or a sugar, amino acid or peptide residue,

R' represents a protecting group for an amine function, a hydrogen atom, a lower alkyl radical, a polyether radical, an optionally substituted aryl radical or an amino acid, peptide or sugar residue,

r and r' , which are identical or different, represent a protecting group for an amine function, a hydrogen atom, a lower alkyl radical, a polyether radical, an optionally substituted aryl radical or an amino acid, peptide or sugar residue, or alternatively, taken together, form a heterocycle,

r'' and r''' , which are identical or different, represent a hydrogen atom, a lower alkyl radical, a polyether radical, an optionally substituted aryl radical or an amino acid, peptide or sugar residue, or alternatively, taken together, form a heterocycle,

Y represents $C(R_9)_2$, O, S, Nr' , CHOH, CO, SO or SO_2 ,

Z_2 represents O, S or NR' ,

Z_3 represents O or S,

n is equal to 0 or 1;

p is equal to 0, 1, 2 or 3;

t is equal to 0, 1, 2 or 3; and

q is an integer between 0 and 10,

or a salt or isomer thereof.

96. (New) A method according to Claim 95, wherein said at least one compound having formula (I) has at least one characteristic selected from the group consisting of:

R_1 is a radical $-(CH_2)_p-CO-O-R_{13}$,

R_2 is hydrogen,

R_3 is hydrogen or an alkenyl radical,

R_5 or R_6 is a radical $-OR_{11}$,

R_7 is a cycloalkyl radical,

Z_1 is an oxygen atom,

Y is a radical $C(R_9)_2$, and

m is equal to 1.

F1
Cont.
97. (New) A method according to Claim 95, wherein said at least one compound having formula (I) has all of the following characteristics:

R_1 is a radical $-(CH_2)_p-CO-O-R_{13}$,

R_2 is hydrogen,

R_3 is hydrogen or an alkenyl radical,

R_5 or R_6 is a radical $-OR_{11}$,

R_7 is a cycloalkyl radical,

Z_1 is an oxygen atom,

Y is a radical $C(R_9)_2$, and

m is equal to 1.

98. (New) A method according to Claim 95, wherein said at least one compound having formula (I) is selected from the group consisting of:

3-[3-(1-adamantyl)-4-methoxyphenyl]-3-methyl-2*H*-1-benzofuran-6-carboxylic acid,

methyl 3-[3-(1-adamantyl)-4-methoxyphenyl]-3-methyl-2*H*-1-benzofuran-6-carboxylate,

3-[3-(1-adamantyl)-4-methoxyphenyl]-3-methyl-2*H*-1-benzofuran-5-carboxylic acid,

methyl 3-[3-(1-adamantyl)-4-methoxyphenyl]-3-methyl-2*H*-1-benzofuran-5-carboxylate,

3-methyl-3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-2*H*-1-benzofuran-6-carboxylic acid,

methyl 3-methyl-3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-2*H*-1-benzofuran-6-carboxylate,

3-(propen-2-yl)-3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-2*H*-1-benzofuran-6-carboxylic acid,

methyl 3-(propen-2-yl)-3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-2*H*-1-benzofuran-6-carboxylate,

3-(propen-2-yl)-3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-2*H*-1-benzofuran-5-carboxylic acid,

methyl 3-(propen-2-yl)-3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-2*H*-1-benzofuran-5-carboxylate,

3-methyl-3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-2H-1-benzofuran-5-carboxylic acid,

methyl 3-methyl-3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-2H-1-benzofuran-5-carboxylate,

3-methyl-3-(1,2,3,4-tetrahydro-1,4a,9b-trimethyl-1,4-methanodibenzofur-8-yl)-2H-1-benzofuran-6-carboxylic acid,

methyl 3-methyl-3-(1,2,3,4-tetrahydro-1,4a,9b-trimethyl-1,4-methanodibenzofur-8-yl)-2H-1-benzofuran-6-carboxylate,

3-methyl-3-(1,2,3,4-tetrahydro-1,4a,9b-trimethyl-1,4-methanodibenzofur-8-yl)-2H-1-benzofuran-5-carboxylic acid,

methyl 3-methyl-3-(1,2,3,4-tetrahydro-1,4a,9b-trimethyl-1,4-methanodibenzofur-8-yl)-2H-1-benzofuran-5-carboxylate,

3-allyl-3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-2H-1-benzofuran-6-carboxylic acid,

methyl 3-allyl-3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-2H-1-benzofuran-6-carboxylate.

[3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-3-methyl-2H-1-benzofur-5-oyl]morpholine,

N-4-hydroxyphenyl-3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-3-methyl-2H-1-benzofuran-5-carboxamide,

N-butyl-3-methyl-3-(5,5,8,8-tetramethyl-5,6,7,8-tetrahydro-2-naphthyl)-2H-1-benzofuran-5-carboxamide,

Ff
cont.

methyl 3-[4-(1-adamantyl)-3-methoxyphenyl-3-methyl-2*H*-1-benzofuran]-6-carboxylate,

3-[4-(1-adamantyl)-3-methoxyphenyl-3-methyl-2*H*-1-benzofuran]-6-carboxylic acid,

methyl 3-(3-methyl-5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-3-methyl-2*H*-1-benzofuran-6-carboxylate,

3-(3-methyl-5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-3-methyl-2*H*-1-benzofuran-6-carboxylic acid,

methyl 3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-3-(3,5-di-*tert*-butyl-4-hydroxybenzyl)-2*H*-1-benzofuran-6-carboxylate,

3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-3-(3,5-di-*tert*-butyl-4-hydroxybenzyl)-2*H*-1-benzofuran-6-carboxylic acid,

3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-3-methyl-2*H*-1-benzofuran-5-methanol,

3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-3-methyl-2*H*-1-benzofuran-5-carbaldehyde,

methyl (-)-3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-3-methyl-2*H*-1-benzofuran-5-carboxylate,

methyl (+)-3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-3-methyl-2*H*-1-benzofuran-5-carboxylate,

methyl (-)-3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-3-methyl-2*H*-1-benzofuran-6-carboxylate,

methyl (+)-3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-3-methyl-2H-1-benzofuran-6-carboxylate,

methyl 3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-3-(2-hexenyl)-2H-1-benzofuran-6-carboxylate,

3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-3-(2-hexenyl)-2H-1-benzofuran-6-carboxylic acid,

3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-3-hexyl-2H-1-benzofuran-6-carboxylic acid,

methyl 3-methoxycarbonylmethyl-3-(5,5,8,8-tetramethyl-5,6,7,8-tetrahydro-2-naphthyl)-2H-1-benzofuran-6-carboxylate, and

3-carboxymethyl-3-(5,5,8,8-tetramethyl-5,6,7,8-tetrahydro-2-naphthyl)-2H-1-benzofuran-6-carboxylic acid.

99. (New) A method according to Claim 98, wherein said at least one compound having formula (I) is selected from the group consisting of:

3-[3-(1-adamantyl)-4-methoxyphenyl]-3-methyl-2H-1-benzofuran-6-carboxylic acid,

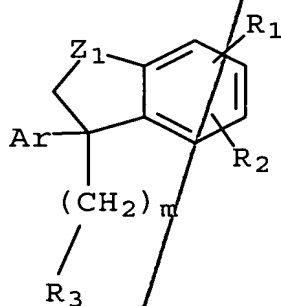
3-methyl-3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-2H-1-benzofuran-6-carboxylic acid, and

3-methyl-3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-2H-1-benzofuran-5-carboxylic acid.

Agmt.

5/1/98

100. (New) A method for inhibiting alopecia in a subject inflicted with alopecia, said method comprising administering to said subject, for a time and under conditions effective to exert an agonist or antagonist activity on the retinoic acid receptor, in an amount effective to treat said alopecia, at least one compound having the formula (I) below:

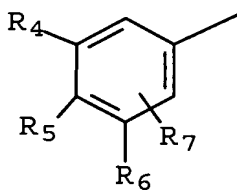


(I)

in which:

Ar represents

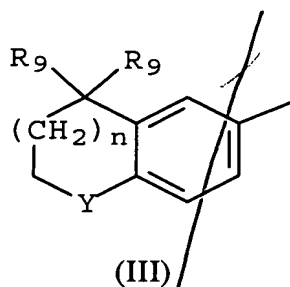
the radical of formula (II) below:



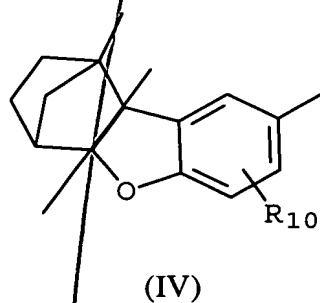
(II)

or the radical of formula (III) below:

Ar



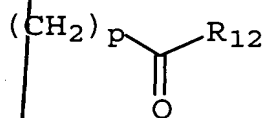
or the radical of formula (IV) below:



R₁ represents an atom or a radical selected from the group consisting

of:

- (i) a -CH₃ radical,
- (ii) a radical -(CH₂)_p-O-R₁₁,
- (iii) a radical -OR₁₁,
- (iv) a radical



and

FI
Agent.

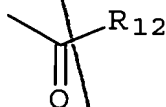
(v) a radical $-S(O)_iR_{13}$,

R_2 represents a hydrogen atom, a halogen atom, an alkyl radical or the radical $-OR_{11}$,

R_3 represents an atom or a radical selected from the group consisting of:

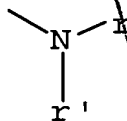
(i) an atom or a radical selected from the group consisting of a hydrogen atom, an alkyl radical, an alkenyl radical, an alkynyl radical, an aryl radical, a monohydroxyalkyl radical, a polyhydroxyalkyl radical, a polyether radical, a cyano radical and a radical $-O-R_{11}$,

(ii) a radical



and

(iii) a radical



Z_1 represents O, S or NR' ,

m is an integer between 0 and 10,

R_4 , R_5 , R_6 and R_7 are identical or different and are selected from the group consisting of:

(i) a hydrogen atom,

(ii) an alkyl radical having at least 4 carbon atoms, wherein the carbon attached to the phenyl radical is substituted with at least two carbon atoms,

(iii) a cycloalkyl radical,

(iv) a radical $-(Z_2)_n-(CH_2)_q-CO-R_{12}$, and

(v) a radical $-Z_3-R_{11}$,

wherein at least one of the radicals R_4 , R_5 , R_6 and R_7 is an alkyl radical as defined in (ii) or a cycloalkyl radical (iii),

R_8 and R_9 represent lower alkyl radicals,

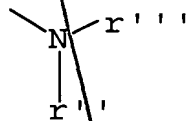
R_{10} represents a lower alkyl radical, a radical $-OR_{11}$ or a polyether radical,

R_{11} represents a hydrogen atom, a lower alkyl radical, an aryl radical, an aralkyl radical, a monohydroxyalkyl or polyhydroxyalkyl radical, a polyether radical or a lower acyl radical,

R_{12} represents:

(a) a hydrogen atom, an alkynyl radical, an alkenyl radical, an alkyl radical or a heterocycle

(b) a radical



(c) a radical $-OR_{13}$,

R_{13} represents a hydrogen atom, an alkyl radical, a monohydroxyalkyl or polyhydroxyalkyl radical, an optionally substituted aryl or aralkyl radical or a sugar, amino acid or peptide residue,

R' represents a protecting group for an amine function, a hydrogen atom, a lower alkyl radical, a polyether radical, an optionally substituted aryl radical or an amino acid, peptide or sugar residue,

r and r' , which are identical or different, represent a protecting group for an amine function, a hydrogen atom, a lower alkyl radical, a polyether radical, an optionally substituted aryl radical or an amino acid, peptide or sugar residue, or alternatively, taken together, form a heterocycle,

r'' and r''' , which are identical or different, represent a hydrogen atom, a lower alkyl radical, a polyether radical, an optionally substituted aryl radical or an amino acid, peptide or sugar residue, or alternatively, taken together, form a heterocycle,

Y represents $C(R_9)_2$, O, S, Nr' , CHOH, CO, SO or SO_2 ,

Z_2 represents O, S or NR' ,

Z_3 represents O or S,

n is equal to 0 or 1;

p is equal to 0, 1, 2 or 3;

t is equal to 0, 1, 2 or 3; and

q is an integer between 0 and 10,

or a salt or isomer thereof.

101. (New) A method according to Claim 100, wherein said at least one compound having formula (I) has at least one characteristic selected from the group consisting of:

R_1 is a radical $-(CH_2)_p-CO-O-R_{13}$,

R_2 is hydrogen,

R_3 is hydrogen or an alkenyl radical,

R_5 or R_6 is a radical $-OR_{11}$,

R_7 is a cycloalkyl radical,

Z_1 is an oxygen atom,

Y is a radical $C(R_9)_2$, and

m is equal to 1.

102. (New) A method according to Claim 100, wherein said at least one compound having formula (I) has all of the following characteristics:

R_1 is a radical $-(CH_2)_p-CO-O-R_{13}$,

R_2 is hydrogen,

R_3 is hydrogen or an alkenyl radical,

R_5 or R_6 is a radical $-OR_{11}$,

R_7 is a cycloalkyl radical,

Z_1 is an oxygen atom,

Y is a radical $C(R_9)_2$, and

m is equal to 1.

Conf.

103. (New) A method according to Claim 100, wherein said at least one compound having formula (I) is selected from the group consisting of:

3-[3-(1-adamantyl)-4-methoxyphenyl]-3-methyl-2*H*-1-benzofuran-6-carboxylic acid,

methyl 3-[3-(1-adamantyl)-4-methoxyphenyl]-3-methyl-2*H*-1-benzofuran-6-carboxylate,

3-[3-(1-adamantyl)-4-methoxyphenyl]-3-methyl-2*H*-1-benzofuran-5-carboxylic acid,

methyl 3-[3-(1-adamantyl)-4-methoxyphenyl]-3-methyl-2*H*-1-benzofuran-5-carboxylate,

3-methyl-3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-2*H*-1-benzofuran-6-carboxylic acid,

methyl 3-methyl-3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-2*H*-1-benzofuran-6-carboxylate,

3-(propen-2-yl)-3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-2*H*-1-benzofuran-6-carboxylic acid,

methyl 3-(propen-2-yl)-3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-2*H*-1-benzofuran-6-carboxylate,

3-(propen-2-yl)-3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-2*H*-1-benzofuran-5-carboxylic acid,

methyl 3-(propen-2-yl)-3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-2*H*-1-benzofuran-5-carboxylate,

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Cont.

3-methyl-3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-2H-1-benzofuran-5-carboxylic acid,

methyl 3-methyl-3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-2H-1-benzofuran-5-carboxylate,

3-methyl-3-(1,2,3,4-tetrahydro-1,4a,9b-trimethyl-1,4-methanodibenzofur-8-yl)-2H-1-benzofuran-6-carboxylic acid,

methyl 3-methyl-3-(1,2,3,4-tetrahydro-1,4a,9b-trimethyl-1,4-methanodibenzofur-8-yl)-2H-1-benzofuran-6-carboxylate,

3-methyl-3-(1,2,3,4-tetrahydro-1,4a,9b-trimethyl-1,4-methanodibenzofur-8-yl)-2H-1-benzofuran-5-carboxylic acid,

methyl 3-methyl-3-(1,2,3,4-tetrahydro-1,4a,9b-trimethyl-1,4-methanodibenzofur-8-yl)-2H-1-benzofuran-5-carboxylate,

3-allyl-3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-2H-1-benzofuran-6-carboxylic acid,

methyl 3-allyl-3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-2H-1-benzofuran-6-carboxylate.

[3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-3-methyl-2H-1-benzofur-5-yl]morpholine,

N-4-hydroxyphenyl-3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-3-methyl-2H-1-benzofuran-5-carboxamide,

N-butyl-3-methyl-3-(5,5,8,8-tetramethyl-5,6,7,8-tetrahydro-2-naphthyl)-2H-1-benzofuran-5-carboxamide,

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Conf.

methyl 3-[4-(1-adamantyl)-3-methoxyphenyl-3-methyl-2*H*-1-benzofuran]-6-carboxylate,

3-[4-(1-adamantyl)-3-methoxyphenyl-3-methyl-2*H*-1-benzofuran]-6-carboxylic acid,

methyl 3-(3-methyl-5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-3-methyl-2*H*-1-benzofuran-6-carboxylate,

3-(3-methyl-5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-3-methyl-2*H*-1-benzofuran-6-carboxylic acid,

methyl 3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-3-(3,5-di-*tert*-butyl-4-hydroxybenzyl)-2*H*-1-benzofuran-6-carboxylate,

3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-3-(3,5-di-*tert*-butyl-4-hydroxybenzyl)-2*H*-1-benzofuran-6-carboxylic acid,

3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-3-methyl-2*H*-1-benzofuran-5-methanol,

3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-3-methyl-2*H*-1-benzofuran-5-carbaldehyde,

methyl (-)-3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-3-methyl-2*H*-1-benzofuran-5-carboxylate,

methyl (+)-3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-3-methyl-2*H*-1-benzofuran-5-carboxylate,

methyl (-)-3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-3-methyl-2*H*-1-benzofuran-6-carboxylate,

F1
Cont.

methyl (+)-3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-3-methyl-2H-1-benzofuran-6-carboxylate,

methyl 3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-3-(2-hexenyl)-2H-1-benzofuran-6-carboxylate,

3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-3-(2-hexenyl)-2H-1-benzofuran-6-carboxylic acid,

3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-3-hexyl-2H-1-benzofuran-6-carboxylic acid,

methyl 3-methoxycarbonylmethyl-3-(5,5,8,8-tetramethyl-5,6,7,8-tetrahydro-2-naphthyl)-2H-1-benzofuran-6-carboxylate, and

3-carboxymethyl-3-(5,5,8,8-tetramethyl-5,6,7,8-tetrahydro-2-naphthyl)-2H-1-benzofuran-6-carboxylic acid. .

FI
Conclude
104. (New) A method according to Claim 103, wherein said at least one compound having formula (I) is selected from the group consisting of:

3-[3-(1-adamantyl)-4-methoxyphenyl]-3-methyl-2H-1-benzofuran-6-carboxylic acid,

3-methyl-3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-2H-1-benzofuran-6-carboxylic acid, and

3-methyl-3-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthyl)-2H-1-benzofuran-5-carboxylic acid.
